

ABSTRACT OF THE DISCLOSURE

Hydroplaning detection apparatus operates to feature
extract a change pattern of vibration detection values for the
5 respective front and rear wheel sides of a vehicle by excluding
inherent tire influences on the vibration detection values, to
execute pattern matching between the front and rear wheel sides
on the basis of the feature extracted change patterns of the
detection values, to obtain a time difference from a coincidence
10 of the change patterns, and to calculate a first vehicle speed
based on the time difference and a reference distance such as a
wheel base of the vehicle. The hydroplaning detection apparatus
also operates to calculate a second vehicle speed based on an average
value of wheel speeds detected by the rear wheel speed sensor.
15 The hydroplaning detection apparatus determines that hydroplaning
has occurred if a deviation between the first vehicle speed and
the second vehicle speed is greater than a certain value.